

exothermically reacts with, said metal powder, said metal powder being selected from the group consisting of electro-exploded aluminum powder, electro-exploded titanium powder, electro-exploded copper powder, electro-exploded zinc powder, and electro-exploded yttrium powder, said oxidizer having average particle size of about 1 μm to about 30 μm , said ignition material deflagrating when said heating element is heated to a temperature of at least about 250°C.

23. The electrically actuatable igniter of claim 22 wherein said metal powder includes macro-agglomerates of metal particles, said metal particles having an average diameter less than about 0.1 μm .

24. The electrically actuatable igniter of claim 23 wherein said macro-agglomerates have an average diameter of about 1 μm to about 2 μm .

25. The electrically actuatable igniter of claim 24 wherein said metal powder has a surface area of about 15 square meters per gram.

26. The electrically actuatable igniter of claim 25 wherein said oxidizer is selected from the group consisting of alkali metal nitrates, alkaline earth metal nitrates, alkali metal perchlorates, alkaline earth metal perchlorates, alkali

metal chlorates, alkaline earth metal chlorates, ammonium perchlorate, ammonium nitrate, and mixtures thereof.

27. The electrically actuatable igniter of claim 25 wherein said metal powder is electro-exploded aluminum powder.

28. The electrically actuatable igniter of claim 25 wherein the said metal powder comprises about 25% to about 50%, by weight of the ignition material, and said oxidizer comprises about 50% to about 75%, by weight of the ignition material.

29. The electrically actuatable igniter of claim 25 wherein said ignition material upon deflagration produces an ignition product with a temperature of about 3000°C to about 6000°C.

30. An electrically actuatable igniter comprising;
a pair of electrodes;
a heating element electrically connected between said electrodes; and
an ignition material in contact with said heating element, said ignition material comprising about 25% to about 50%, by weight of the ignition material, electro-exploded aluminum powder and about 50% to about 75%, by weight of the ignition material, a particulate oxidizer that exothermically reacts with said electro-exploded aluminum

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powder, said oxidizer having an average particle size of about 1 μm to about 30 μm , said ignition material deflagrating when said heating element is heated to a temperature of at least about 250°C.

31. The electrically actuatable igniter of claim 30 wherein said oxidizer is selected from the group consisting of alkali metal nitrates, alkaline earth metal nitrates, alkali metal perchlorates, alkaline earth metal perchlorates, alkali metal chlorates, alkaline earth metal chlorates, ammonium perchlorate, ammonium nitrate, and mixtures thereof.

32. The electrically actuatable igniter of claim 30 wherein said ignition material upon deflagration produces an ignition product with a temperature of about 3000°C to about 6000°C.

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